

Appendices to Presidential priorities, congressional control, and the quality of regulatory analysis: An application to healthcare and homeland security

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Appendix 1: Data sources

Score data: Score data for ordinary economically significant regulations were downloaded from www.mercatus.org/reportcards. Score data for the eight interim final healthcare regulations were downloaded from <http://mercatus.org/reportcards/projects/patient-protection-and-affordable-care-act>. Scores for the five interim final homeland security regulations are reported in Belcore and Ellig (2008). This source breaks out separate scores for “Costs” and “Cost-Benefit.” After consulting with the authors of that article, we weighted these two scores to produce a combined Cost-Benefit score comparable to the Cost-Benefit score for the other regulations in the sample.

Regulation type: The authors coded each regulation by type (Healthcare, Security, Budget, Civil Rights, Economic, Environment, Safety) based on the regulation’s subject matter.

Issuing agency: Dummy variables for HHS and DHS were assigned based on which agency issued the regulation; this information is available in the Federal Register notice for each regulation.

Administration (Obama or Bush): Regulations are assigned to administrations based on the date the regulation cleared OIRA review, which is available at www.reginfo.gov.

Presidential Priority: This variable is coded as 1 for healthcare regulations during the Obama administration and 1 for security regulations during the Bush administration.

Statutory Regulation Deadline: Coding is based on whether www.reginfo.gov indicated that the regulation had a statutory deadline.

Statutory Provision Deadline: Coding is based on whether the regulation implements a statutory provision that had a deadline, even if the statute did not explicitly require the agency to implement the provision via regulation. For the ACA regulations, the source of this information

is Copeland (2010). For the homeland security regulations, the source is Belcore and Ellig (2008).

Agency Policy Preference: The source of the score for each agency is Clinton and Lewis (2008).

Midnight Regulation: Dummy variable equal to 1 if the regulation cleared OIRA after the Bush administration's self-imposed June 2008 deadline and was finalized between Election Day 2008 and Inauguration Day 2009. The date the regulation cleared OIRA is available at www.reginfo.gov.

Midnight Leftover: Dummy variable equal to 1 if the regulation cleared OIRA after the Bush administration's self-imposed June 2008 deadline but was not finalized by Inauguration Day 2009. The date the regulation cleared OIRA is available at www.reginfo.gov.

Acting OIRA Administrator: Dummy variable equal to 1 if the regulation cleared OIRA after Inauguration Day 2009 and before Cass Sunstein's confirmation as OIRA administrator on Sept. 10, 2009. The date the regulation cleared OIRA is available at www.reginfo.gov.

Appendix 2: Summary statistics for all Report Card scores

	Analysis					Outcomes				Systemic Problem			
	N	Mean	SD	Min	Max	Mean	SD	Min	Max	Mean	SD	Min	Max
Proposed	111	8.9	4.3	0	18	2.6	1.4	0	5	1.7	1.3	0	5
Interim Final	13	5.6	2.5	3	11	1.8	0.9	1	4	1.0	0.9	0	3
Prescriptive	82	10.5	3.6	2	18	3.1	1.1	1	5	2.1	1.3	0	5
Budget	42	4.6	2.2	0	10	1.3	1.0	0	4	0.9	0.7	0	2
Healthcare	33	5.4	2.5	1	11	1.5	1.1	0	4	1.0	0.7	0	3
Not Healthcare	91	9.6	4.2	0	18	2.8	1.3	0	5	1.9	1.4	0	5
Security	7	7.1	5.0	3	15	1.9	1.2	1	4	1.1	1.6	0	4
Not Security	117	8.6	4.2	0	18	2.5	1.4	0	5	1.7	1.3	0	5
HHS	33	5.9	2.9	1	13	1.6	1.2	0	4	1.2	0.8	0	3
Not HHS	91	9.5	4.3	0	18	2.8	1.3	0	5	1.8	1.4	0	5
DHS	9	7.9	5.1	3	15	2.0	1.3	1	4	1.6	1.7	0	4
Not DHS	115	8.6	4.2	0	18	2.5	1.4	0	5	1.7	1.3	0	5
Obama	70	8.9	4.2	1	18	2.7	1.3	0	5	1.7	1.2	0	4
Bush	54	8.0	4.4	0	16	2.2	1.3	0	5	1.6	1.4	0	5
Presidential Priority	27	6.1	3.3	1	15	1.6	1.0	0	4	1.2	1.0	0	4
Not Pres. Priority	97	9.2	4.3	0	18	2.7	1.3	0	5	1.8	1.3	0	5
Stat. Deadline-Reg.	39	6.8	4.1	1	16	1.8	1.4	0	4	1.2	1.1	0	4
No Stat. Deadline	85	9.3	4.1	0	18	2.8	1.2	0	5	1.9	1.3	0	5
Stat. Deadline-Prov.	46	6.8	3.9	1	16	1.8	1.3	0	4	1.2	1.1	0	4
No Stat. Deadline	78	9.6	4.2	0	18	2.9	1.2	0	5	1.9	1.3	0	5

	N	Alternatives				Cost-Benefit				OIRA Review Days			
		Mean	SD	Min	Max	Mean	SD	Min	Max	Mean	SD	Min	Max
Proposed	111	2.4	1.4	0	5	2.2	1.0	0	5	52.4	42	0	200
Interim Final	13	1.2	1.0	0	3	1.6	0.5	1	2	13.5	14	1	37
Prescriptive	82	2.8	1.3	0	5	2.6	0.9	1	5	55.7	45	0	200
Budget	42	1.2	0.9	0	3	1.3	0.6	0	2	33.9	32	0	124
Healthcare	33	1.4	0.9	0	3	1.5	0.6	0	2	27.6	31	0	90
Not Healthcare	91	2.5	1.4	0	5	2.4	1.0	0	5	55.8	43	0	200
Security	7	1.7	1.8	0	4	2.4	0.8	2	4	45.9	34	3	94
Not Security	117	2.3	1.3	0	5	2.1	1.0	0	5	48.4	43	0	200
HHS	33	1.6	1.0	0	3	1.6	0.6	1	3	29.7	32	0	90
Not HHS	91	2.5	1.4	0	5	2.3	1.1	0	5	55	43	0	200
DHS	9	2.0	1.7	0	4	2.3	0.9	1	4	48	35	3	94
Not DHS	115	2.3	1.3	0	5	2.1	1.0	0	5	48.3	43	0	200
Obama	70	2.4	1.4	0	5	2.2	1.1	0	5	43.4	41	0	200
Bush	54	2.1	1.4	0	4	2.0	1.0	0	4	54.6	43	0	151
Presidential Priority	27	1.5	1.2	0	4	1.8	0.7	1	4	29.2	30	1	94
Not Pres. Priority	97	2.4	1.3	0	5	2.2	1.1	0	5	53.6	44	0	200
Stat. Deadline-Reg.	39	1.8	1.3	0	4	2.1	0.9	1	4	40.6	34	0	105
No Stat. Deadline	85	2.4	1.3	0	5	2.1	1.1	0	5	51.8	45	0	200
Stat. Deadline-Prov.	46	1.8	1.3	0	4	2.0	0.9	1	4	35.3	34	0	105
No Stat. Deadline	78	2.5	1.3	0	5	2.2	1.1	0	5	55.9	45	0	200

Appendix 3: Regressions using agency authority dummy variables

The interim final regulations may have low-quality analysis because Congress gave the agencies little discretion in writing the regulations. Since the agencies had little discretion, they made little effort to conduct a thorough analysis (Belcore and Ellig 2008). Table A1 presents additional regressions to test this alternative hypothesis. In all cases, *Interim Final* remains negative and significant, regardless of how we control for the amount of discretion Congress granted the agency.

Specification 6 in Table A1 is identical to specification 4 in Table 3, but the sample in Table A1 omits the budget regulations. Published research indicates that administrations tend to treat budget regulations differently in the regulatory review process, and inclusion of budget regulations in regression equations sometimes masks other relationships (Ellig and McLaughlin 2011; Ellig, McLaughlin and Morrall 2013). Agencies usually have less flexibility for budget regulations than for prescriptive regulations. Thus, Table A1's regressions offer a more powerful test of the effects of agency discretion on the quality of RIAs by omitting a category of regulations for which it is already clear that agencies have less discretion and tend to produce significantly lower-quality RIAs. Specification 7 adds dummy variables that control for the type of regulation – *Civil Rights*, *Environmental*, and *Safety* (the omitted category is economic regulation). Even when we omit the budget regulations, *Interim Final* is negative and highly significant.

Specification 8, 9, and 10 add several variables that indicate different aspects of agency discretion for individual regulations. *Regulation Required* equals 1 if the agency was required to issue a new regulation, or 0 if the agency had the option of choosing no new regulatory action.¹

¹The option of “no new regulatory action” does not necessarily mean less or no regulation. In many cases, “no new regulatory action” means that a regulation already in force remains effective and is not replaced by a new regulation.

Two dummy variables indicate the extent to which the agency had flexibility to choose the form of the regulation, such as mandating a particular technology, adopting a performance standard, or creating economic incentives to alter regulated entities' behavior. *Prescribed Form* equals 1 if the form of the regulation was already determined by legislation. *Some Choice of Form* equals 1 if law allowed the agency to choose among several regulatory tools. If the agency had broad discretion to choose whatever regulatory tools it deemed appropriate, both of these dummy variables equal 0. Similarly, two dummy variables indicate the agency's flexibility to choose terms of the regulation, such as its scope, stringency, and who it applies to. *Prescribed Terms* equals 1 if legislation established the principal terms of the regulation (such as directly setting a price or an emissions limit). *Some Choice of Terms* equals 1 if the law gave the agency some limited discretion in setting the terms of the regulation (such as the requirement that EPA set air quality standards at a level that protects public health without regard to cost). If the agency has broad discretion to choose the stringency, coverage, or other terms of the regulation, both of these dummy variables equal 0. The codings for these five dummy variables are based on the agency's own description of its legislative authority in each NPRM.

Specification 8 simply adds the discretion dummy variables to specification 7.

Specification 9 controls for agency-specific fixed effects but omits the regulation type variables.

Specification 10 controls for both regulation type and agency-specific effects.

With one exception, the agency discretion dummy variables are not significant in any of the specifications. *Prescribed Form* is significant in specification 8, when we do not control for agency-specific effects, but its sign is positive – the opposite of what we would expect if less discretion leads to less thorough analysis. The regressions identify several factors that are correlated with the quality of regulatory impact analysis, but the amount of discretion Congress

gave the agency is not one of them. Conversely, the interim final regulations have lower scores even after controlling for the amount of discretion the agencies had on each regulation.² Thus, narrow legislative delegation does not by itself seem sufficient to reduce the quality of regulatory impact analysis. Since most of the ACA regulations and all of the security regulations were prescriptive regulations, our fundamental statistical result holds up even with the most extensive array of control variables.

²We also ran separate regressions using only the *Regulation Required* dummy variable, the two choice of form dummy variables, and the two choice of terms dummy variables. None of these specifications changed the results.

Table A1
Analysis Score Regressions, 82 Prescriptive Regulations

	Dependent Variable: Analysis Score				
	(6)	(7)	(8)	(9)	(10)
Interim Final	-4.41 (2.58)**	-4.54 (2.59)**	-4.57 (2.55)**	-4.22 (2.25)*	-4.75 (2.48)*
Health Care	-4.00 (1.91)	-5.50 (2.44)*	-7.71 (3.25)**	-6.09 (2.61)**	-9.03 (3.30)**
Security	-4.96 (1.85)	-4.39 (1.62)	-7.07 (2.23)*	-4.84 (1.45)	-6.38 (1.77)
DHS	2.22 (1.28)	1.51 (0.87)	3.20 (1.59)	4.69 (1.68)	5.13 (1.58)
HHS	1.84 (1.56)	3.54 (2.56)**	4.79 (3.22)**	-1.76 (0.69)	1.20 (0.41)
Presidential Priority	3.66 (1.51)	4.19 (1.71)	5.22 (2.07)*	3.80 (1.41)	4.75 (1.76)
Statutory Prov. Deadline	0.05 (0.09)	-0.33 (0.49)	-1.56 (1.87)	-0.80 (0.92)	-1.26 (1.20)
Judicial Deadline	1.21 (2.10)*	0.40 (0.65)	-0.51 (0.71)	0.72 (0.91)	0.29 (0.35)
Midnight	-1.06 (1.13)	-1.81 (1.78)	-1.74 (1.68)	0.19 (0.14)	-0.11 (0.08)
Leftover	-0.77 (0.96)	-1.10 (1.25)	-1.27 (1.40)	-0.92 (0.94)	-1.44 (1.29)
Acting OIRA Admin.	-0.72 (1.04)	-0.92 (1.30)	-0.73 (0.97)	-1.07 (1.45)	-0.60 (0.76)
Obama x Agency Pref.	0.77 (1.92)	0.81 (2.05)*	1.07 (2.54)*	-2.44 (1.63)	-1.98 (1.25)
Bush x Agency Pref.	-0.83 (1.88)	-1.04 (2.28)*	-1.00 (2.10)*	-4.11 (2.88)**	-3.89 (2.56)**
Obama	-0.04 (0.05)	-0.51 (0.62)	-0.85 (1.02)	-0.14 (0.15)	-0.34 (0.35)
Civil Rights		-1.12 (0.93)	-3.81 (2.42)*		-4.40 (1.95)
Environmental		1.64 (2.29)*	1.82 (1.97)*		-0.39 (0.22)
Safety		-0.36 (0.49)	-1.06 (1.17)		-1.47 (1.27)
Regulation Required			0.31 (0.58)	0.95 (1.35)	0.88 (1.16)
Prescribed Form			2.82 (2.46)*	-0.62 (0.53)	0.71 (0.53)
Some Choice of Form			0.54 (0.52)	-1.83 (1.45)	-0.75 (0.54)
Prescribed Terms			-1.33 (1.54)	-0.35 (0.44)	-1.08 (1.08)
Some Choice of Terms			-0.97 (1.38)	1.09 (1.50)	0.64 (0.67)
DOT				-0.69 (0.40)	0.03 (0.02)
EPA				-3.42 (1.46)	-2.69 (0.97)
DOL				-6.42 (2.52)*	-5.49 (2.12)*
DOJ				-0.38 (0.17)	2.18 (0.85)
DOI				1.02 (0.44)	0.72 (0.27)
DOE				1.10 (0.54)	1.36 (0.52)
USDA				4.13 (1.91)	4.34 (1.65)
GSA				-3.27 (1.25)	-3.01(1.11)
Joint EPA/DOT				5.97 (2.37)*	5.75 (1.82)
Pseudo R2	0.10	0.14	0.17	0.19	0.20
N	82	82	82	82	82

Absolute value of z-statistics in parentheses. * p < 0.05, **p < 0.01